

Cover (in meters)	Minimum Class & D-Load
1.80	Class II 500
1.81 - 2.40	Class III 650
2.41 - 3.00	Class III Special 800
3.01 - 3.60	Class IV 1000
3.61 - 4.20	Class IV Special 1200
4.21 - 5.00	Class V 1400
5.01 - 6.00	Class V Special 1700

See Notes 6 and 9

METHOD 1

Cover (in meters)	Minimum Class & D-Load
4.80	Class II 500
4.81 - 6.00	Class III 650
6.01 - 7.50	Class III Special 800
7.51 - 8.50	Class IV 1000
8.51 - 10.60	Class IV Special 1200
10.61 - 12.80	Class V 1400
12.81 - 15.00	Class V Special 1700

See Notes 8 and 9

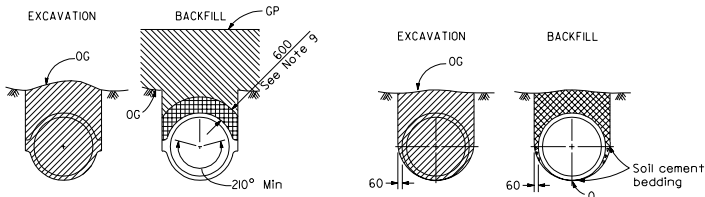
METHOD 2

REINFORCED CONCRETE PIPE

See Notes 1, 2, 7 and 10

Cover (in meters)	Minimum Class & D-Load
7.90	Class II 500
7.91 - 9.70	Class III 650
9.71 - 11.50	Class III Special 800
11.51 - 13.70	Class IV 1000
13.71 - 17.00	Class IV Special 1200
17.01 - 20.70	Class V 1400
20.71 - 24.00	Class V Special 1700

METHOD 3



IN TRENCH ONLY

CAST-IN-PLACE

NON-REINFORCED CONCRETE PIPE

See Notes 7 and 12

LEGEND

OD = Outside diameter for circular pipes and maximum vertical dimension for other shapes

ID = Inside diameter for circular pipes and minimum vertical dimension for other shapes

RCP = Reinforced concrete pipe



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET TOTAL NO. SHEETS
July 1, 1999 PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.				

NOTES

- Unless otherwise shown on the plans or specified in the special provisions, the Contractor shall have the option of selecting the class of RCP and the method of backfill to be used, provided the height of cover does not exceed the value shown for the RCP selected.
Examples:
600 mm RCP culvert with maximum cover of 5.80 m the options are:
a) Class V Special or stronger with Method 1.
b) Class III or stronger with Method 2.
c) Class II or stronger with Method 3.
Cover is defined as the maximum vertical distance from top of pipe to finished grade within the length of any given culvert.
- The class of RCP, method of backfill and bedding selected shall be the same throughout the length of any given culvert.
- The "length of any culvert" is defined as the culvert between:
a) Successive drainage structures (inlets, junction boxes, headwalls, etc.).
b) A drainage structure and the inlet or outlet end of the culvert.
c) The inlet and outlet end of the culvert when there are no intervening drainage structures.
- Slope or shore excavation sides as necessary.
- Embankment height prior to excavation for installation of all classes of RCP under Methods 2 and 3A shall be as follows:
Pipe sizes 300 mm to 1050 mm ID = 150 mm
Pipe sizes 1200 mm to 2100 mm ID = 2/3 OD
Pipe sizes larger than 2100 mm ID = 1500 mm
- The maximum size for all classes of RCP placed under Method 1 is 1950 mm ID.
- Non-reinforced precast pipe sizes 900 mm or smaller may also be placed under Methods 1, 2 or 3.
- Oval or arch shaped RCP shall be placed under Method 2 only.
- Embankment compaction requirements govern over the 90% relative compaction backfill requirement within 750 mm of finished grade.
- Backfill shall be placed full width of excavation except where dimensions are shown for backfill width or thickness. Dimensions shown are minimums.
- Minimum cover over top of pipe at edge of traveled way shall be 600 mm for AC pavement and 300 mm for PCC pavement.
- Where the precast non-reinforced concrete pipe is used as a substitute for the cast-in-place pipe, both the wall thickness and the concrete strength shall be at least as great as that specified for the cast-in-place pipe. The fill height allowed shall not exceed that shown for the cast-in-place pipe.

EXCAVATION AND BACKFILL CONCRETE PIPE CULVERTS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

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